



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

ENVIRONMENTAL SERVICES DIVISION
REGION 7
25 FUNSTON ROAD
KANSAS CITY, KANSAS 66115

DEC 11 1995

Site: Carter Carburetor	
ID #:	MOD000822601
Break:	103
Other:	12-11-95

MEMORANDUM

SUBJECT: Sampling Plan for the Integrated Assessment of the
Carter Carburetor Site, St. Louis, Missouri

FROM: Douglas J. Brune, Environmental Engineer, ENSV

THRU: Ernest L. Arnold, Regional Quality Assurance Manager

TO: Betty Berry, SUPR

I reviewed the subject document, prepared by the Technical Assistance Team (TAT) contractor, Ecology and Environment (E&E), and dated November 28, 1995, according to Region 7 ENSV's Standard Operating Procedure (SOP) 1330.2, "Review of Quality Assurance Related Documents."

Attached please find Attachment A, "QA Document Review Checklist." Based on this completed checklist and the comments presented below, summarized as a result of our meeting with Steve Sanchez, E&E/TAT, on 12/5/95, I am recommending approval with comment. The completed original signature page is attached. A copy has been retained for R7QAMO records.

Project Objective

1. Key Personnel, §8.1, page 8-1. The four-member TAT team consists of a project and sample manager, a site safety officer and sampler, a Geoprobe operator and sampler, and a field chemist. Names and a brief statement of qualifications should be provided.

2. Analytical Techniques and Data Assessment Procedures, §7, page 7-1.

a. The authors request a QA Level 3, as defined in OSWER Directive 9360.4-01 (Quality Assurance/Quality Control Guidance for Removal Activities). This QA level calls for 100% verification of all field-screening samples. It appears QA Level 2 was intended.

b. The MCL listed for PCBs, i.e., 0.5 µg/L, is based on decachlorobiphenyl, and not a single or sum of the individual Aroclors.

Sampling Procedures

1. Sampling Activities, §4, page 4-1.

a. Past sampling has confirmed PCBs and metals contamination on site. The rationale for collecting samples for



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determinations of volatiles (VOCs) and semi-VOCs are not identified.

b. Tables 8 and 9 provide a summary of all proposed samples to be collected. Table 9 could not be found. (This table will be provided by Steve Sanchez via telefax for use in defining samples in LAST.)

2. Pages 4-1--4-5. Sample containers should be employed as follows:

- non-aqueous samples: one 8-ounce glass jar each for metals, PCBs, and semi-VOCs, two 40-ml glass vials for VOCs; no chemical preservation.

- water samples: two 80-ounce glass jugs each for PCBs and semi-VOCs, cool 4°C; one 1-Liter cubitainer for metals, HNO₃ to pH < 2; two 40-ml glass vials for routine VOCs (four for LDL¹), sodium thiosulfate for chlorinated water supplies, HCl to a pH < 2 1-Liter, and cool 4°C.

3. Soil Sampling, §4.2.

a. Pg. 4-2--4-3. TAT proposes to collect confirmatory samples based on PCBs and/or VOCs field-screening results. Each confirmatory sample will be analyzed for metals and semi-VOCs, as well as PCBs and VOCs. It should be understood that a positive PCBs or VOCs field-screening result will not guarantee an alternate positive VOCs or PCBs result, nor detection of metals and/or semi-VOCs.

Note: Per our discussion with Steve Sanchez, the field-screening samples are used to select samples for off-site analysis. The resulting data will not be used to confirm field-screening results. Therefore, tolerance limits are not necessary.

b. Page 4-2. TAT proposes to collect multiple depth intervals "for example" 3-5 feet, 8-10, 13-15, and 18-20 feet. It is understood that these are targeted depths, but cannot be guaranteed until actual field conditions are encountered.

4. Table 8. This table summarizes the number of analyses per matrix and source at the site. An accompanying site map would assist in identifying approximate sample locations.

Analytical Procedures

Analytical Techniques and Data Assessment Procedures, §7, page 7-1. The "WS" analytical request, i.e., semi-VOCs in water by GC/MS², will not provide detection below the level of concern, i.e., maximum contaminant levels (MCLs). Since semi-VOCs have

¹ Low Detection Limit

² Gas Chromatography/Mass Spectrometer

not been documented on-site, this monitoring will only indicate "gross" contamination.

Field and Laboratory OC Samples

1. Quality Assurance and Quality Control Procedures, §6, page 6-1. Tolerance limits for the field duplicate samples should be established prior to the generation of environmental data in order to avoid subjective evaluation of the resulting data.

Note: As promised, here are the historical precision values for PCBs in soil, as identified in the QCSUM Report available on the LAN (F1, F3, Item 5).

PCB	Precision	QC Sample Used
1016	***	Insufficient Data
1221	***	Insufficient Data
1232	***	Insufficient Data
1242	171	Field Duplicates
1248	93.4	Field Duplicates
1254	46.2	Field Duplicates
1260	57.9	Field Duplicates

If you have any questions, please contact me at x5180.

Attachments

R7QAMO Activity Number: 96-QQ1JJ
R7QAMO Document Number: 96045

Attachment 2

QA Document Review Checklist

Project/Plan Name: Sampling Plan for the Integrated Site Assessment of the
Carter Carburetor Site: St. Louis, Missouri

Activity Number: 96-001JJ Document Number: 96045

Deficiencies were found in the elements checked below:
(See the attached review report for comments)

1. Project Objective

___ Objective or scope of the data collection activity
___ Intended use of the data
___ Action level, required detection limits, data quality objectives
XXX Project participant/responsibility table; line authority diagram

2. Sampling Procedures

___ Sampling network and rationale
XXX Sampling schedule, locations, frequency, duration
___ Sample matrices, target analyte
___ Sampling/decontamination procedures
XXX Sample containers, preservation, holding times
___ Sample shipment/transportation, coordination with the laboratory
___ Sample custody and documentation of field activities

3. Analytical Methodology

___ Quality of written procedure or choice of reference.
XXX Method detection limit, precision, accuracy, comparability
___ Laboratory documentation

4. Field and Laboratory QC Samples

___ Field QC elements
___ Laboratory QC elements
___ Frequency of QC checks
XXX Control limits and corrective actions

5. Data Review, Validation and Reporting

___ Review process
___ Acceptance/rejection criteria for validation
___ Data deliverables

___ Approval Recommended

R7QAMO Reviewer: Douglas J.

Brune
XXX Approval Recommended w/Comments

Completion Date: December 5,

1995

___ Resubmission Recommended

